C-poorest Gas 0 CO.,
(cubic metre). required, produced.
This corresponds
to 4 7'40, which
from formula
(12) could bum 2x47-4=94-8 H Actual H (if
freed) c o n-
tained in this
gas = 109-6
Deficit in amount
arrived at
14-8 = 15-6 per cent. (26)
C-richest Gas O 0(.)a
(cubic metre). required, produced.
This corresponds
to 37*10, which
from formula
(12)couldburu i>x57'i^ll4'2 H Acutual H (if
freed) contained in this
gas == 124-6
Deficit in amount
arrived at
10-4 = 9-1 per cent. (26)
These respective amounts should be added to the amounts of Hd, respectively found by means of combustion, in order to obtain approximately correct values.
These latter inaccuracies might strongly. discredit the method, were not the causes thereof so openly obvious. One sees at once that in addition to H and C, 0 and N also go over in the distillation gas, and that is the foundation of the trouble in the result.
If one takes into account, viz., that in C-poorest gas 7*4 cubic metres 0 are obtained from the fuel, which could burn 7*4 X 2—14*8 cubic metres H, the deficiency of 14'8 cubic metres H which was found by combustion, is cleaved up. But the data always depend on so many arbitrary assumptions, that for quantitative calculations, they cannot come into great demand.
But in consequence of the advantageous circumstance that the amounts of 0 and N (especially that of 0) in the gasc s from mineral coals, are quite small in ratio to the amounts of H (assumed as in the free state) these data, in default of better, are nevertheless able to render good service for quantitative purposes. Possibly in the future it will be possible to ascertain accurate values for specified fuels, and thus data which approximate more nearly; until then one must be satisfied with this.